

2015 Q5

(a) There is a positive, linear, moderately strong relationship between arm span and height.

(b)(i) Graph 2 should be used because with line  $y=x$  students categorized as "square" would appear as dots on the line, "tall rectangle" dots would be below the line, and "short rectangle" dots would be above the line.

(ii)

<u>square</u>	<u>tall rectangle</u>	<u>short rectangle</u>
3	4	5

(c) prediction is best with the LSRL:  $\hat{y} = 11.74 + 0.8247x$   
so  $\hat{y} = 11.74 + 0.8247(61) = \boxed{62.0467 \text{ in}}$